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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 10/077,391      | 02/15/2002  | Nikolčo S. Nikolovski | 29385-69914         | 4154             |

23643 7590 09/25/2003

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EXAMINER

TRAN, LEN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1725

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

10/077,391

Applicant(s)

NIKOLOVSKI ET AL.

Examiner

Len Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of claims 1-21 in Paper No. 5 and 6 are acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Strezov et al (US 5,701,948) in view of Irie et al (US 4,368,084) and Suichi et al (US 5,227,251).

Strezov et al discloses a method of continuously casting a steel strip comprising the steps of providing a chilled casting surface, with a texture, with a casting pool of molten steel having a manganese content of no less than 0.6% by weight, silicon in the range of 0.1 to 0.35% by weight, carbon content less than 0.07% by weight (col. 7, lines 42-51). Strezov also discloses wherein the texture have surface distribution of between 5 to 100 peaks per mm square and average height of at least 10 microns to 20 microns (col. 3, lines 7-12).

However, Strezov do not disclose textured formed by random pattern of discrete projections having pointed peaks, and strip are moving away from casting pool at 60 m/min.

Suichi et al discloses an irregular of discrete projections having pointed peaks (col. 2, lines 14-16 and figure 3) for the purpose of preventing surface cracking of the cast plate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide irregular, random, pattern as taught by Suichi et al, in Strezov et al because it prevents surface cracking of the cast plate.

Irie et al on the other hand discloses speed rate of the strip to be rolled at 60 min/m to 80 min/m for the purpose of increasing the productivity of metal strip.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide the speed as taught by Irie et al, in Strezov et al and Suichi et al because increasing the productivity of the metal strip allows saving costs and time to the operation.

5. Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strezov et al (US 5,701,948) in view of Irie et al (US 4,368,084) and Suichi et al (US 5,227,251) as applied in claim 9, in view of JP 08294751.

Strezov et al, Irie et al, and Suichi et al disclose the claimed invention substantially above, but fails to disclose casting surface defined by grit blasted substrate covered by protective coating.

JP '751 discloses casting surface formed by shot blasting or electroplated and covered by a protective coating, such as nickel and chromium for the purpose of providing a thin slab having a smooth surface.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide shot blasting or electroplating method and covered by a protective coating as taught by JP '751, in Strezov et al, Irie et al, and Suichi et al because a smooth surface on the slab is necessary as the final product.

JP '751 discloses electroplating method, but fails to teach chemical deposition or electrodeposition method as how to apply the protective coating.

However, such method of applying the protective coating would have been obvious to one of ordinary skill in the art at the time applicant's invention was made, since electroplating, chemical deposition, or electrodeposition, were art recognized equivalents for applying the

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protective coating. Therefore, substituting any of these methods would have been an obvious design choice.

6. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strezov et al (US 5,701,948) in view of Irie et al (US 4,368,084) and Suichi et al (US 5,227,251) as applied in claim 9, in view of JP 08294751 in view of JP 58-29547.

in Strezov et al, Irie et al, Suichi et al, and JP '751 disclose the claimed invention substantially above, but fails to disclose coating formed of nickel, chromium, molybdenum, and cobalt.

JP '547 discloses a coating formed of composition consisting of Co, Mo, and Cr, for the purpose of protecting the inner face of the mould.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide coating composition of JP '547, in Strezov et al, Irie et al, Suichi et al, and JP '751 because this allow the inner face of the mold to be protected.

#### ***Response to Arguments***

7. Applicant's arguments filed on 7/17/03 and 7/25/03 have been fully considered but they are not persuasive.

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Suichi et al fail to teach a casting roll surface with random pattern of discrete projections of any kind. Examiner respectfully disagrees. Applicant claims the casting roll to have a random pattern. Examiner had referred to Webster's dictionary and the term random means lacking a definite pattern. Similarly, Suichi et al disclose in column 2, lines 15-18, that the term "tortoise shell pattern" is intended to mean an irregular pattern substantially surrounded by dimples. Furthermore, column 4, lines 10-15, indicates that the rollers having depressions of circular or elliptical form having "ununiformly" distribution on the surface thereof. Therefore, the prior arts of record disclose the claimed invention as claimed.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Len Tran whose telephone number is (703)605-1175. The examiner can normally be reached on M-F, 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Len Tran  
Examiner  
Art Unit 1725

LT  
September 16, 2003



M. ALEXANDRA ELVE  
PRIMARY EXAMINER